

FIGURE 1

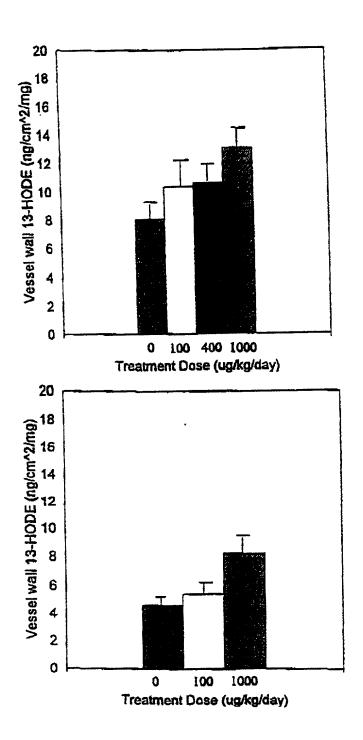


FIGURE 2 2/6

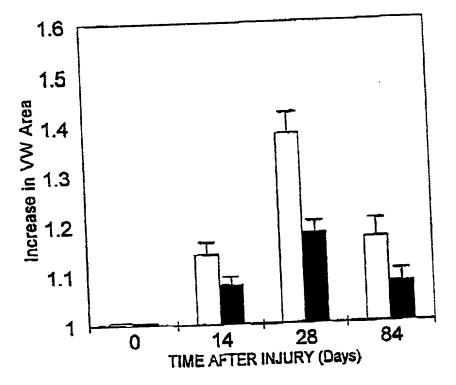
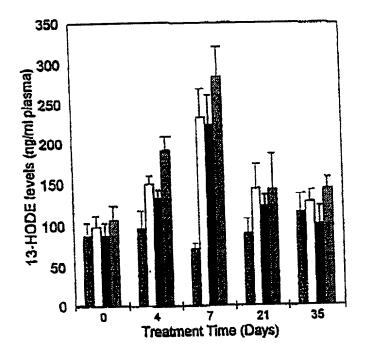


FIGURE 3



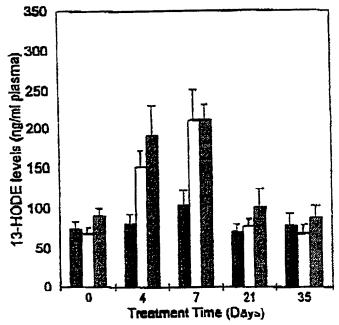


FIGURE 4

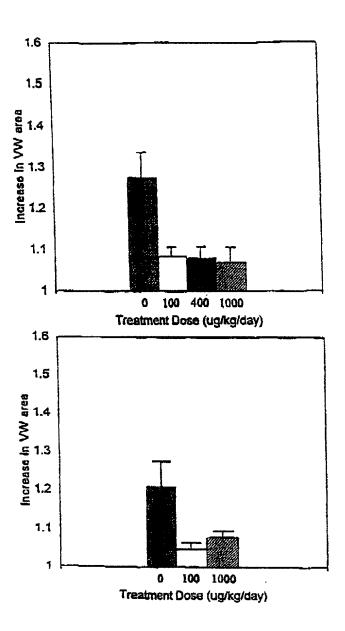
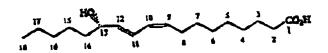


FIGURE 5 5/6



## Proton near spectrum (270Mis; CDCl3)

 $\delta(ppm)$ 

6.5(1H, dd, H<sub>11</sub>, J<sub>11,16</sub>=1 1Hz, J<sub>11,17</sub>=15.2Hz), 6.0(1H, t, H<sub>10</sub>, J<sub>10,9</sub>=J<sub>10,11</sub>=1 1Hz), 5.7(1H, dd, H<sub>12</sub>, J<sub>12,11</sub>=15.2Hz, J<sub>12,15</sub>=6.8Hz), 5.4(1H, dt, H<sub>2</sub>, J<sub>2,2</sub>=7.7Hz, J<sub>2,16</sub>=10.8Hz), 4.1(1H,m,H<sub>11</sub>), 2.4(2H, t, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub></sub>

## Carban-13 near spectrum (67.8MHz, CDCl.)

δ(ppm)

. 179.3(C1), 135.6(C12), 132.6(C1), 127.8(C14), 125.8(C11), 72.9(C13), 37.1-22.4(C17.C14. C15. C14. C4. C5. C4. C5. C6. C5. C2) and 13.9(C12).

## Infrared spectrum

3500-2560cm<sup>-1</sup> (bread O-H stretch) and 1709cm<sup>-1</sup>(C=O stretch)

Ultraviolet spectrum (ethanolic solution)

1, 232mm (ex25,000 mol day cm-1)

Soluble in

chanol, dichloromethano.

Insoluble in begane water.